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Authors Derek Rayside Electrical & Computer Engineering, University of Waterloo, Waterloo, Ontario
Evan Mamas Electrical & Computer Engineering, University of Waterloo, Waterloo, Ontario
Erik Hons Electrical & Computer Engineering, University of Waterloo, Waterloo, Ontario

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ABSTRACT

Embedded systems bring special purpose computing power to consumer electronics devices players and pagers. Java is being aggressively targeted at such systems with initiatives such as Micro Edition, which introduces certain efficiency optimizations to the Java Virtual Machine. It is identified as an important future goal for ensuring Java's success on embedded systems [20]. Processing power and timing constraints often make traditional compression techniques unsuitable. One must meet the conflicting requirements of size reduction and execution performance. We propose a file format for Java binaries that achieve significant size reduction with little or no performance loss. Experiments conducted on several large Java class libraries show a typical 25% size reduction for class files compared to JAR files.

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Note: OCR errors may be found in this Reference List extracted from the full text article. AC complete List rather than only correct and linked references.

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↳ D.4.7 Organization and Design

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General Terms:

Algorithms, Design, Experimentation, Measurement, Performance, Theory

↑ Collaborative Colleagues:

Erik Hons: Evan Mamas

Derek Rayside

Evan Mamas: Eshrat Arjomandi

Erik Hons

Simon Moser

Bill O'Farrell

Richard Paige

Derek Rayside

Shuxia Tan

Derek Rayside: Casey Best Martin Litolu

Gerard T. Campbell Evan Mamas

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Erik Hedges Jerome Miecznikowski

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